CIRCUMVENTING THE MAHSEER AND OTHER SPORTING FISH IN INDIA.

BY

A. ST. J. MACDONALD,

(With 4 plates and 2 text-figures).

(Continued from page 205 of this volume)

PART VI.

MAHSEER FISHING IN ASSAM AND THE DOOARS.

Varieties of Mahseer and other sporting fish in Assam (1), Goalpara and Kamrup districts (2), Darrang district (3), Lakhimpur and Sadiya Frontier Tract (4), Sibsagar district (5), Nowgong district (6), Garo Hills (7), Sylhet and Cachar (8), Lushai Hills (9), Manipur (10), Peacock's account of Sarasati— Garo Hills (11), Laour on Puna Teet—From The Angler's Hand Book (12), Notes by Gyles Mackreel (13), Anonymous account on Darrang district (14), Notes on Cachar by Mr. Cooper (15), Further notes on Cachar by Mr. Ewing (16), Notes on Manipur (17), Notes on dark variety of Mahseer (18), Fairweather's notes on Mahseer in Bengal and Assam Dooars (19), Notes by Mr. O. M. Martin (20), Mr. Ritchie's notes on fishing the Teesta river (21).

Assam is a province of hills and mighty rivers, and is, with Burma, the best suited for mahseer in the Indian Empire.

It is intersected from the north-east to the south-west by the great Brahmaputra, which takes in along its course the many fine tributaries from the north, rising in Bhutan, and those rising in the Garo, Khasi, Rengama, Naga and Patkai hills from the south.

Further south, the Barak or Surma with its many smaller tributaries drains the districts of Cachar and Sylhet, all good mahseer water.

It has not come within my good fortune to fish in this province, so I am unable to offer any first-hand notes. I had hoped to solicit the aid of one of the resident anglers, to write a chapter on the excellent fishing enjoyed by the local community, but my attempts failed. So that what should have proved to be one of the most interesting chapters of this book, must now simply be the compiled notes of a few fishermen, who have so generously contributed notes within their own experience.

The hill tracts are almost entirely given up to tea growing, and have in consequence a fairly large European community of planters, amongst whom are a number of keen anglers. Some of the best rivers are protected or leased by clubs, so that before anyone intends visiting the water, he should first of all make full enquiries, and get the goodwill and permission of the local club.

From correspondence I have had, it would appear that unless one did this, or had a friend to help, it would be difficult to get to the best water, as boats and transport are almost impossible to obtain, the best places being considerable distances from rail and road head, The fishing, though excellent, has become a monopoly of the local community, and it would hardly be worth while undertaking a long rail journey, for any but those fortunate in having friends to help.

I am indebted to Mr. Giles Mackreel for the excellent plate of the teeth of the mahseer, with his interesting notes and photos of fish. He records similar types of mahseer from Assam, to those listed by me, in the Burma chapter, pt. V. His notes on the teeth of the different types of fish, are both interesting and instructive. I am also most grateful to Messrs. Cooper and Ewing for their interesting notes covering years of experience. It is interesting to note how the opening up of the country has affected the fishing in certain rivers, over a period of years. I also thank the gentleman who has sent me the note on fishing at Darrang, but who prefers to remain anonymous.

Last but by no means least, I have to thank Mr. Inglis for allowing me to reproduce here certain articles from his excellent journals of the Darjeeling Natural History Society.

I have listed for convenience, and purely by the aid of the Gazetteer, the districts with the larger rivers in them. Perhaps if this book runs to a second edition, anglers will correct or send me up-to-date notes on water within their own experience, so that I can include them in a chapter on Localities.

1. Varieties of Mahseer and other Sporting Fish in Assam.— The Mahseer in Assam attains a great size, and appears in many varieties, or more correctly in conspecific forms, as we learn from Dr. Sunder Lal Hora's interesting articles 'The Game Fishes of India' in the Bombay Natural History Society's Journals, Vols. 41 and 42.

Besides the Mahseer, the Bokar (*B. hexagonolepis*) frequents most of the rivers, and affords excellent sport on fly, with the sporting little *Barilius bola* (Indian Trout) and the Butchwa; besides these all the big Silurids are represented, common amongst which are the Goonch, Silund, *Wallago attu*, and Tangra. In the tanks the Rohu, Mirgil, and Catla are taken, along with the Murrel in his weedy haunts.

2. Goalpara and Kamrup Districts.—In the west the Gadadhar river bounds the district, and is formed by the two Bhutan rivers, the Raidhak, and Muchu. The Goalpara district is further intersected from north to south by the Champamati, and two other smaller rivers (names of which are not available). The Manas is a stream of considerable size and is snow-fed, and must be excellent up in the hills and at junctions with feeder streams.

'A number of rods go up the Manas each year, and usually have good results. But others are doing immense damage.'

3. Darrang District.—The Dhansiri is a stream of considerable size and must have excellent water in the hills. The Bhareli is a snow-fed river that joins the Brahmaputra in this district and in size is equal to the Manas.

'Mahseer are to be found in the Boanuddy which is the boundary river between Kamrup and Darrang. They are found in large pools in the gorge near the Bhutan border. They are also found in the Borelli near Tezpur and the Manas. In the latter rivers they run up from 40 to 60 lbs,'

4. Lakhimpur District and Sadiya Frontier Tract.—N. Lakhimpur itself is on the Ranga, and about 10 miles from the hills.

'Here two rods fishing caught a 50 pound Mahseer on Xmas day on a No. 8 spoon.'

Further east the Subansiri, a large stream, flows through the district and is fed by many large tributaries in the Miris country.

'This is a very fast river and contains some huge fish. I got a 26 pounder in March and then my boat was upset in a rapid, and I lost all my rods and tackle. Two Europeans have been drowned in it, in comparatively recent years. There is a forest bungalow at Dabing Mukh, and a number of rods go up every year. Silvery and beautiful.'

Further east we come to the Sadaya frontier tracts which have probably the biggest water in the province, and where enormous fish lurk in the waters of the Dihang Sesiri, Dibang, and Luhit rivers.

'The Dihang is really the upper water of the Brahmaputra, huge fish can be seen in some of the gorges, but there are sheer cliffs to the water's edge. The water is not cold.'

In the south or left bank the Noa Dihang and Buri Dihang join in, with the Disang and Jhamdi.

5. *Sibsagar District.*—The Dhansiri is the largest river flowing through this district, and should offer good sport above Dimapur on the A.B.Ry. Besides this there are other smaller streams that provide sport with small fish.

'Notably the Doiang which can be joined from Jamguri station A.B.Ry.'

6. Nowgong District.—The Jumna which rises in the Rengma hills has provided excellent sport with small fish, also the Kapili. Lumding is a convenient railway station for this water, from where trekking must be done.

7. Garo Hills.—There are a number of rivers that rise and hold good fish in these tracts. Chief among which are the Krishnai which flows north and the Bhogi, Kangsa and Someswari which flows south. All excellent Mahseer rivers (from old notes).

8. Sylhet and Cachar.—The Surma or Barak, with its tributaries, drains these districts and affords excellent sport in the higher and jungly reaches to the members of the fishing club at Silchar, who lease the river from the Government to protect it from poaching. This club protects the Loobah, Barak and Jumtrapai rivers.

Sunamganj is on the Surma, and it is from near here that Laour is reached on the Punateet. (See notes from 'The Angler's Hand Book'.)

9. Lushai Hills.—Here some excellent rivers run and very good fishing is to be had almost without exception in the Dheleswari, Sonai, Tipai, Kaladan and Langai Rivers (but no recent notes are available).

10. *Manipur.*—Good sport can be had with fair sized fish, in the Barak, Northern Hills; in the Thopal Eastern Hills; and in the Chakai Southern Hills. Large Mahseer are to be had in the Barak and its larger tributaries the Idang and Makru in the Western Hills.

'The largest fish taken in recent years was a 56 pounder, caught by me (Gyles Mackreel) on a Myitkyina Macdonald spoon, in December 1928.'

The Manipur river itself rises in the north of this state, and after running into a large lake (Loktak Lake) flows south and out of the State into the Chin Hills and Burma.

Besides the rivers I have mentioned there are many others of which only local knowledge can assist, and the ways and means of getting to them, must of necessity be obtained locally. The notes in parentheses are by Mr. Gyles Mackreel, and the

note on Boanuddy by J. L.

11. Recent Notes on fishing and localities in Assam and the Dooars by F. Peacock, Esq.

'Garo Hills, 36 miles north from Mymensingh railway station. River Sarasati near a place called Durgapur, the best fishing to be had about 22 miles from Durgapur between two villages, Ryuk and Seejoo, and about 2 miles beyond the latter place. The water is well known in the neighbourhood. The best way to reach the water is by rail from Calcutta to Goalundo, $8\frac{1}{2}$ hours; thence by steamer to Narayangunj, 103 hours, thence by rail to Mymensingh, 7 hours. From Mymensingh to Durgapur is a road good for driving part of the way and for riding the whole way. The place was visited in February with good results. In 1877, 48 fish, weighing 877 lbs., or over, an average of 19 lbs. per fish, were killed by two rods in $3\frac{1}{2}$ days all Mahseer. The best way to fish is with a spoon, from a boatmoving. On hooking a fish it is best to land and play him from the shore.'

12. Laour, Assam from 'The Angler's Hand Book'.- 'The river is called the Punateet and runs out of the Khasia hills at Laour. To get to it, you have to branch off at Sunamgunge (on the Soormah) and go by boat to a village called Elamgao; here you can get dingies and boatmen to take you up the gorge, where you must rough it in a grass hut. It is a beastly unhealthy place. Every time I go there all my servants are knocked over with fever. I got it once, but on that occasion I was there for 6 weeks.'

6	Extracts fro	m my	Dia	ry :		
	[•] November	19th	got	nil.	los	t 4 fish.
	۶,,					19, lost three.
	37					30, 36.
	2.1	22nd		6	۰,	46, 31, 41, 25, 13, 12.
		23rd	,,	2		44, 30.
	23					24, 32.
	* *	25th	59	nil		ve the good pools a rest, and tried some new
					1	water.
	3.9	26th	,,	3	bs.	18, 58, 55.
	,,	27th	,,	3		29, 29, 62.
	7.9	28th	,,	8	29	16, 54, 20, 33, 7, 32, 33, 26.
	,,	29th	,,	2	,,	28, 26.
	,,	3 0th	,,	1	۰,	28, tried new water again.
	December	1st	,,	1		21.'

Col. H. S. Wood writing in the Journal of the Darjeeling Natural History Society, Vol. VIII, No. 1 of the June issue of 1933. 'When I left the Military I was fortunately posted to Svlhet. In this district Ommaney, mentioned in Thomas' "Rod in India", made his fabulous bags of Mahseer. I soon found out the best places, they were the Ponatite at the N.W. corner of the district where the river debouched into the plains through a lovely gorge in the Sunamguni sub-division. I shall never forget my amazement, when I

* Probably means the Someswari.

first gazed on this fisherman's paradise. There was a huge pool, several hundred yards long, now and then I saw the red fin of a Mahseer protrude above the water and the Chilwa scuttled along the water as one of those fish rushed for them.'

'Consequence was that after each mighty rush, traces and line gave way and I lost all my fish and most of my spoons. I threw away the remainder of that tackle and ordered a new lot from Hardy, Manton and Luscombe. On my next visit to this place I got some nice fish and secured a Goonch (Bagarius varellii) of 67 pounds with which I had great fun.' 'This Ponatite was a fascinating place. In the higher reaches the cliffs rose abruptly from the water's edge and the rocks assumed all sorts of fantastic shapes. On some of them I noticed writings in Urdu and visited a wonderful cave, full of bats. The higher reaches are difficult for boats as there are rapids, up which a dug-out cannot pass. There is also no path along the edge to reach the pools beyond, a folding boat is of no use, so the Mahseer is safe in those higher pools. Hard by the Ponatite is the Tangour Haor, which at one time swarmed with Sambhur, Hog-deer, Pig, Buffalo and Tiger, but like all places in India the game has been decimated by Zamindars, and slaughter during heavy floods.'

'Mr. Gyles Mackreel writing of this River, points out that the course of time appears to have changed the name of the Ponatite. He writes "I think this must be the 'Gohairi' or the 'Piyain' of modern maps."

13. Notes by Mr. Gyles Mackreel.- 'The only rivers I have fished personally are Loobah, Barak & Tepi, Kinshyiang, Goomra, Toorsa, Jaldacca, Malangi, Soobansiri. The Loobah runs up into the Khassia Jaintia Hills, past a tea garden of the same name. As the fish pass up and down there is fair fishing in the lower reaches, but the Mahseer all make for the top, and in Oct. and Nov. one will hardly get a fish down below, as those that are going down have gone, and the ones remaining are three days' journey up into the hills. I have been up several times and my best fish is a 32 pounder. They run larger, as I have found two of the short gilled variety killed by Otter which must have been over 50 lbs when fresh as they weighed nearly that putrid. You will see, the gills are far shorter than the common Mahseer. My theory is that it is a bottom feeder that lives, when large, on crabs and large water snails as the teeth are quite different to those of the ordinary Mahseer. I am having a photograph made to show this difference and will send it to you. Is it a big carnatic carp?† I have caught these up to 15 lbs. but never bigger. In Assam the carp is called the Boka. It fights very well indeed. In Cachar and Sylhet they call it the Maugri. The Mahseer being the Mahoal and the variety of Mahseer I have marked X being the Pukki ranga. This latter fish is (your copper fish?) deep and thick. It does not seem to go above 20 lbs., or at any rate

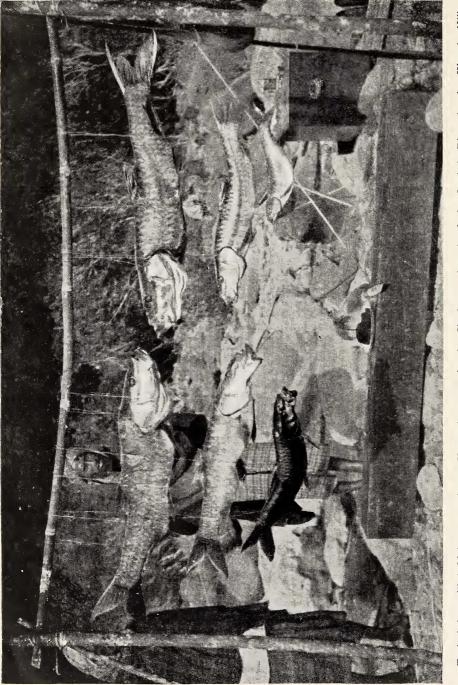
^{*} Between Mr. Peacock's note, and Col. Wood's it should be possible to locate the famous spot, and further notes prove interesting. Neither the 'Gohairi' or the 'Pivain' are mentioned on my maps. \dagger This is B. (Tor) tor (Hamilton). The common grey normal type is B, Tor

putitora, as identified by Hora.









Typical long-gilled Mahseer caught on Xmas day 1930, in the Singlar, a branch of the Loobah River in the Khassia Hills. Note the Black Mahseer in the left corner, and the Carp or 'Maugi' in the right conner.

2.3 Ibs.	18 lbs.	6 lbs.	tho D
25 Ibs.	20 lbs.	12 lbs.	Moth the Vmas audding on

to take a spoon when over that weight. It is a beautiful bronze above, with red fins. The one in my photograph has thick red lips, but I have caught a fish that seemed exactly similar but with ordinary hps. I have found that the Carp all have teeth similar to those in the big fish on the unprinted film, i.e. one huge molar and the usual number of small teeth, the older the fish the more these teeth are ground down. In the *Pukki ranga* the teeth are the same. In the ordinary Mahseer the teeth are sharp, even in big fish. This I think points to the diet, fish and vegetable matter very largely in the ordinary long, gilled Mahseer, crustaceans, etc., in the case of the others. (The lips enlarged through turning over stones in search of Crabs, etc.?) Huge short gilled fish are occasionally caught on atta in the Brahmaputra at Amingaon and Gauhati. One caught last year weighed oo lbs. This was the Boga pitia or white Mahseer of the Assamese as distinct from the Lal pitia or ordinary (red) common long gilled Mahseer. What the Boga pitia is like when small I do not know. I have never caught a big one; and when small he may be the Carp or the *Pukki ranga* both of which are rather like your Chocolate Mahseer.'

'I am going off on a two months fishing holiday in Oct.-Nov. and will then send you, or the Bombay Natural History Society, whichever you like, skins of the various types. I will simply take the insides out and stuff them with salt and straw. I will of course send the description of the colour of the eyes, etc.

Loobah. This river runs into the Khassia-Jaintia Hills. On entering the hills one comes to a huge gorge pool some three quarters of a mile long. This is full of huge rohu, etc., but I have never taken a big Mahseer out of it although it looks ideal. Upstream from this pool the river ascends the hills in a series of rapids and pools. About 8 miles into the hills it becomes the Lunar. The latter forms a series of lime-stone pools and rapids and has no very big fish in it in the cold weather. The other branch, called on the map the Luka but locally the Singlai, dries up at the junction for a matter of some three quarters of a mile, as the river enters a cave higher up and flows under ground for that distance, joining the Lunar and the Loobah under the surface of the latter. This means that fish that have not passed over this barrier while it is still under water in September, remain above for the whole of the cold weather. There are some fine pools, but otter are very plentiful, and the fish get killed off as the water drops. The best fishing is therefore as soon as the water clears in October. Carp are very plentiful and take a fly readily. One rod took 39 fish in one day, nearly all on fly and averaging about 4 lbs. My best bag, fishing with a No. 7 spoon was 13 fish in two days averaging 11 lbs. At that time one could have got a very large numerical bag by the use of a yellow spider or small fly spoon as the smaller fish were taking very readily. I took one coal black Mahseer weighing 11 lbs. The tips of the fins were gold.

'The Kinshyiang is the name given to the Jadhukata where this river enters the Khassia Jaintia hills not far from the border of the Garo Hills. This river had not been fished for some years when I went up it at Christmas 1931. This was the worst time to go as the lower reaches had all been poached, and netting was in progress

in the upper reaches, when I got there. I have applied for Government protection for this river. I found one good pool where the poles for netting were lying ready. It was full of good Mahseer and on Xmas day and Boxing day, with the temp. at about 39° and the water like ice, I got 11 fish averaging 20 lbs. the best fish was 41. There were some very large fish to be seen but I had not got any dead bait and could not get hold of any, and I was fishing with spoon all the time. A No. 7 gave the best results, heavily leaded to get to the bottom. All these nsh were the ordinary long guled red finned mahseer. They fought well.'

This river is difficult of access and I used 100 gals. of petrol getting there and back in a motor boat; and one is liable to get all the way there and find the pools have been cleaned out by poachers. The Subansiri is a direct tributary of the Brahmaputra in North Lakhimpur. It is fished by the Local Government Officials and by Planters in Assam. It is very fast and contains some large fish. One has to hire dugouts from the local Miris who are far from trustworthy. On my last trip some of these experts upset a dugout in a bad rapid and 1 lost all my rods and reels and a 12 bore gun. Mr. Aitken of Tezpur, a well known Assam sportsman, hooked a huge fish the following day but it broke him after 40 minutes without having shown itself. The lower pools of the river are rather a favourite fishing ground for people who want to fish in comfort, as there is a forest bungalow on the river bank. The fish are therefore quite used to all kinds of baits and spoons being trailed from behind a boat and act accordingly. The fishing trips seem to become river picnics. Knowing this I thought I would try something that the hsh had not perhaps seen recently so I mounted 3 six inch fish in a spinner so that they appeared to be swimming in echelon together. The result was a 26 and a 16 pounder in half an hour from water that 7 rods had been fishing a few days before with no result. A fluke? Probably. But worth trying again.

The Toorsa and Jaldacca are both Dooars rivers. The typical Dooars Mahseer seems to be golden brown backed, silver belly, and orange or pale lemon fins. A lovely fish. The other fish is the 'Kutli' which is very much like the Assam carp and is probably the same fish under slightly different conditions. He is like your Chocolate mahseer to look at but only goes up to 10 lbs. I am told. My best is 8 lbs. I will send you a picture of one, side by side with a Mahseer. He has the flattened teeth of the carp.

The Barak is a finished river. Poached from end to end. Two years ago 500 Lushais came down and netted and poisoned all the pools within a few hours of Silchar, dried the fish and went off into the hills again. Ichabod! The river used to be full of magnificent fish and my best bag was thirty pounders and a number of smaller fish in one day.

'The last time I went up I got one four pound fish, and the trip entailed 8 days leave and cost about Rs 300.'

'The Malangi used to be good but the Toorsa has now cut into it and all the shingly pools are now sand and the fish do not stay. The Goomra is a small river in the Cachar hills parallel with the Kalain. It holds fish up to 8 and 10 lbs. in the late rains, but in the cold weather there is nothing big to be taken.

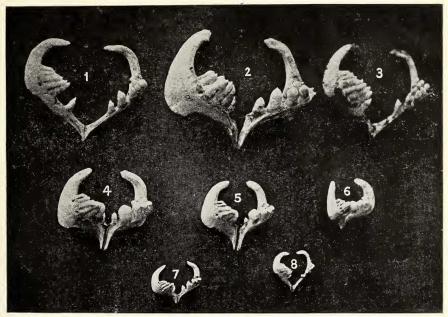


Fig. 1.—Teeth of Mahseer in Assam. Illustrating the sharp teeth of the largeheaded variety, and the blunt teeth of the short or small-headed variety.

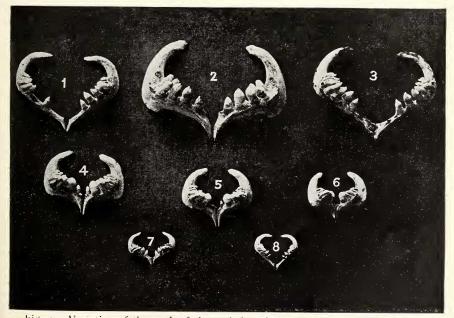
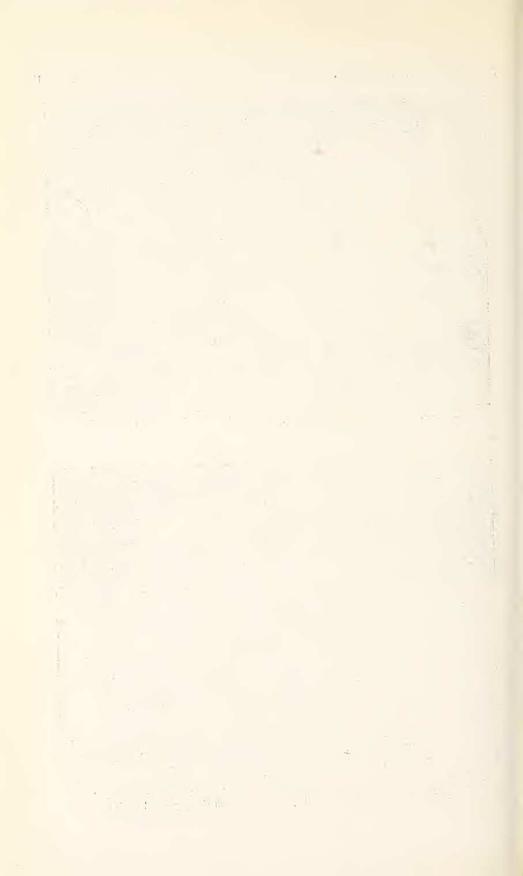


Fig 2.—Variation of the teeth of the varieties of Mahseer in Assam, as observed by Mr. Gyles Mackrell. (The short gill or small heads have blunt teeth. The long-head or the ordinary variety stand alone in sharp pointed teeth.)



'I am afraid this is very disjointed but I will endeavour to write you more later.' The Manas is one of the famous Assam rivers. It is in a game reserve and a special permit is required. I am going up this year but as yet I have no first hand knowledge of it. It is a direct tributary of the Brahmaputra, like the Rydak and Sankhos.

'5-8-'32 I send you some photographs of fish teeth. The point is that the long-gilled Mahseer seems to stand alone as far as teeth go. He is the only one with the *sharp* teeth. The big short gilled fish (I sent you a film of a 50 pounder and I took a photo last month of a 64 pounder but it was in a part of a cine picture and I have not had a print made yet) the short gilled fish has blunt teeth with the one big molar. The carp or *Cutli* of Assam, the Dooars and Sylhet (Assam, *Boka*, Dooars *Katli*, Cachar and Sylhet *Maugri*) all have the blunt teeth. So has the copper fish and the thick hpped fish. The black Mahseer (simply a melanic example of the true long gilled variety) has teeth, scales, etc., exactly as the ordinary coloured one. By black Mahseer I mean *black*. You will see one in one of my pictures.

'I was talking to a man who came down the Manas recently from the upper reaches in Bhutan and he tells me he watched them catching Mahseer there with strips of a scaly gourd off the trees. He was not a fisherman, but he had photographs of the fish. I have caught them on a scaly spoon but seldom.

Up the Sonai, Cachar, one fisherman finds the best thing to use is a No. 8 spoon with a treble mounted on a 7 in. length of gimp. The shank is bound with a little red wool. The fish come short at the spoon in gin clear water and seem to suddenly see the little red thing spinning at the end of it and go for it. I have tried it once and caught a fish, but personally 1 prefer my treble in the centre of my spoon and one flush with the end.'

14. Darrang, Assam.-By an Angler who prefers to remain Anonymous, 7-6-'32. Darrang, on the north bank of the Brahma-putra holds some very fine rivers, and water can be found to suit the taste of any fisherman. Tezpur is the only town in this district and is approached by a daily service of river mail steamers up and down the Brahmaputra from Amingaon; these steamers continue up stream past Tezpur, touching at various Ghats or Mukhs, to the terminus Kokilamukh; reference will be made later to the various Ghats at which the intending visitor should disembark should he wish to visit a particular river. I would say at the outset that it is useless to come to this part without a full camping outfit. Stores can of course be obtained in Tezpur, and there is ample accommodation to be had either in the dak bungalow or the floating residential flat at Tezpur ghat. From this temporary base, the intending fisherman would have to make arrangements to approach the Bhoroly river, which is the largest in Darrang; I would advise him; in fact it is essential to write to the Political Officer, Balipara Frontier Tract, Charduar, Lokra P.O., which is some 20 miles from Tezpur, informing him of his desire to fish and shoot on the Bhoroly. As a matter of fact a Fishing and Shooting Association is in the process of formation in this district, and should it become a going concern, the Political Officer would put the visitor in touch with the Secretary. In any case the next move should be to Charduar from where a 'political' road runs for 22 miles into the foot hills practically along

the banks of the Bhoroly. Either of the above gentlemen would help the visitor to obtain dug-outs, without which it is useless to attempt to fish this river. One boat for each fisherman is definitely necessary, for which he will have to pay at least Rs. 3 per day; the Miris who work and hire the boats are very knowledgeable as to the best water and times to fish; also as regards the game, which at certain times is plentiful in this part; I should make it clear that atter leaving Tezpur, which can be done by rail to Balipara, within a few miles of Charduar, the party should be entirely self-supporting and camping out will be the order of the day, as there are no dak bungalows or shops in this direction, after Tezpur. The way, par excellence, of working this part, or the whole of Darrang tor that matter, would be to bring a car, preferably with a trailer for baggage; every river would then become accessible, especially the Bhoroly, as the 'political' road is always in excellent order, the fisherman is then completely independent of that terror in Assam, and probably elsewhere, the gharry-walla. I strongly urge this course to be adopted should any one think of a fishing trip in Darrang. Presuming the party to have safely got into camp on this river, with the requisite number of boats, they will find plenty of good pools wherein the only method of fishing is by trolling. Anything up to 60 lbs. (I am speaking of Mahseer), may be expected, while for this a No. 7 or 8 spoon is the usual thing and a local secret is to attach a piece of red wool or ribbon to one's spoon; live bait is also a successful lure. Good spinning water will be found every quarter mile or so Fly fishing is not much use on this river, but up its tributaries, especially the Namri, a fly fisherman will obtain good sport. I treat on ity fishing separately however as the Bhoroly is essentially a trolling and spinning river, but subsequent remarks on fly fishing, would apply to most of the tributaries. The Bhoroly is affected by snow water after about the first week in May. The best times to fish would be from November on to March. The first month or two I believe to be the best; but the latter period, if not quite so good for fishing, is balanced by the better prospect of seeing game, anything from bison and buffalo down to barking deer may be met with; and if the party hire an elephant, which would be quite possible, some very good big game shooting could be obtained; in any case, a fairly heavy rifle should be part of one's equipment. As all this country is within the Balipara Frontier Tract administered by the Political Officer, his permission must be obtained before any shooting or fishing is contemplated.

'Another typical river of Darrang, also in the Balipara Frontier Tract, and one of which I have far more intimate knowledge, is the Boroi; a small stream issuing from the Daffla foot hills. It is far smaller than the Bhoroly. This again is quite easily accessible by car, either by road from Tezpur, some 55 miles, or by disembarking from the steamer at Gomirighat, but there are no *dak* bungalows worthy of the name, nor is it possible to obtain stores, Tezpur being the nearest place. The Boroi is a delightful river, wooded banks, short rapids, many deep pools, and as one goes up stream, the river runs through beautiful gorges. This river is ideal for fly fishing, both from the banks and more especially from a boat; after a little practice it is quite easy to stand up in the dug-out, and drift down one of the beautiful gorges casting a fly on the water which laps the precipitous sides. The fish, which I believe to be true Carnatic carp, local name "Boka," can sometimes, when feeding, be seen on the surface, and it is wonderful sport to select a large one and put the fly over him. I have caught up to 16 lbs. on a very light fly rod. You can sometimes see the fish lazily open its mouth and gently suck in the fly, then a quick strike and away he goes. Sometimes these fish take a lure with a rush, but more generally as above described. Then again the rapids hold large mahseer, easily up to 40 lbs; and some very pretty sport, spinning, with anything from a No. 6 spoon, can be had. A fly spoon in some of the lesser rapids sometimes produces good baskets; altogether the streams in Darrang of this type provide some delightful fishing. December is not a good month tor these smaller rivers, I would say late October, if the cold weather has set in early, and November and February-March, especially the latter, as these smaller streams are unaffected by snow water. All through the hot weather good fishing may be had, provided there is no thunder about, which seems to send the fish clean off the feed. As regards fly, No. 6 hooks Limerick scale. The Coachman is a never failing lure, also the Zulu, in fact any sea-trout fly will do, mounted on a Salmon cast, with about 100 yards of line.

'The fishing rivers of Darrang may therefore be divided into two categories, A and B.

A. The Bhoroly, a river suitable for a large party and fairly easily worked, within reach of Tezpur, if the party is provided with a car; and B., the Boroi; a typical example of which I have described, suitable for one hand or at most two, where they must be entirely self-supporting; but again not too inaccessible if the party have a car. It must be understood, although I have not marked them on the sketch map, that the district is thickly dotted with tea gardens, all round Tezpur and east to the Boroi, beyond which there are a few gardens, and the intending visitor may safely rely on getting help and advice from the planters.'

'40 miles further east lies the district of North Lakhimpur in which several fine rivers are to be found, but of which I have no personal experience. One in particular, the Subansiri, which is far larger than the Bhoroly, is I believe a wonderful river for large Mahseer. On the whole the Mahseer and Boka (Carnatic carp) are the two principal fish to be found in all these rivers; the latter takes fly well, also spoon, the former is essentially a fish to be caught on the spoon, and only occasionally takes a fly.'

The Bhoroly is a large snow-fed river suitable for a party of 3 or 4 rods, and approached as above described.'

B. 'The Bor Dikrai, although a tributary of the Bhoroly, deserves to be classed by itself, or rather in the Boroi class.'

'Borgang river and its tributary the Dikal. Means of approach either by road from Tezpur or by river steamer to Behalimukh, or Kathnibrai ghat, P.O. Borgang; suitable for 1 or 2 rods, boats not essential but would be very useful. Good big game shooting, no dak bungalow.'

The Boroi. Means of approach by road from Tezpur or steamer to Gomirighat, P.O. Halem, suitable for 1 or 2 rods, boats essential; good big game shooting.'

15. Notes of Fishing in Cachar by Mr. Cooper.-Mahseer fishing in Assam Cachar. I have done some little during the last 30 years. My personal experience only extends to one district of Assam-Cachar and before dealing with the headings you have given in your questionnaire—I must explain that there is practically no good fishing to be obtained without making an expedition up one of the various rivers into the hills in Manipur Lushai country. This means that one must have boats and a crew, with outfit and generally the use of a motor boat to cover the lower reaches of the river, if one is to get to one's fishing water in a reasonable time. You will therefore understand that it is difficult for any one not a local resident to make a *bandobast* to get to the best water as there are no roads or accommodation of any sort when one gets there. In my young days, the smaller rivers used to provide us with very good fly fishing in October and November and one could reach these on a horse; but increasing population, cultivation, and netting, have made these rivers hardly worth a visit. I will therefore confine my remarks to rivers that I have fished in recent years. Those are the Barak with its tributaries the Jheeri and Tepi; the Sonai, the Loobah-the higher reaches of which are leased from Government at a nominal rent and protected as well as possible by the Surma Valley. Angling Association during the cold weather months.'

'An expedition starting up any of these rivers would have to outfit in Silchar, which is anything from 50-100 miles from the best water. Membership of the Surma Valley Angling Association can be obtained from the Secretary at Rs. 10 per annum. None of the rivers are snow fed.'

'The Barak holds big fish, which are caught by trolling or spinning—with a dead bait or spoons from No. 7-9. Most of the big fish are caught trolling and one rarely gets anything over 15 lbs. spinning. (Probably because Anglers do not fish deep enough. A. M.)'

'The Tepi is, early in the season, good for fly and small spoons, big fish caught spinning have been rare in recent years. The Jheeri is far the best river for fly—those I have been most successful with Yellow Spider, Claret and Mallard, Blackamore, all large size. Fish up to 15 lbs. are caught spinning. All fly fishing is done from a boat. The Loobah can be reached by boat from the Surma and is probably the easiest to get at, it also holds fish up to 50 lbs. both Spoon and Fly do well at the right time.'

The Sonai. 'Some excellent bags have been made up this in recent years chiefly by Mr. Ewing, the Secretary of the Surma Valley Angling Association. Like other rivers in Cachar one must be prepared to camp and travel 3 or 4 days in small boats before getting into really good fishing water.

'All these rivers fish best as soon after the water clears as possible i.e. November and December—the Barak which is a larger river, I have done well on in February.'

'One can generally shoot enough for the pot in the way of jungle fowl, pigeon, odd duck, an occasional deer and serow. Gharial are still fairly numerous on the Barak. Dense jungle down to the river bed makes stalking impossible. Very unhealthy, and feverish between November and March.'



Fig. 1.—Two ordinary Barak Mahseer : 30 lbs.



Fig. 2.—The Barak record : 56 lbs. Length $49\frac{1}{2}$; Gill $29\frac{1}{2}$. A snap out of Mr. Cooper's Notes.



Fig. 3.—Short gill Mahseer : 30 lbs. Cachar and Sylhet : 'Pukki Ranga' Flattened Teeth,



(1) Opening gorge of the Loobah.



(2) A stone lashed between the jaws of a split bamboo. (After smoothing the edges with a knife.) Very useful in 8 or 10 feet of water to rescue a hook from a boat,

Supplies can be obtained from the Manager, Cachar Club, who could possibly arrange for boats and men; but as you will gather from what I have written before—this is not an easy *bandobast* for any non-resident, or to be undertaken unless one has a month or more to spare.

'There are two or three distinct varieties of Mahseer caught, also what is locally known as a ''Carnatic Carp'' the *Boka* of Assam. *Butchwa* up to 2 lbs., also take a fly well at times.'

'*Bags*' Barak. In 1928 two of us landed 51 fish weighing 388 lbs. in five days actual fishing—largest fish 56 lbs., which is a record for the river. In 1931 we only managed to land 35 fish weighing 185 lbs. largest 15 lbs. in about the same time.'

'Jheer1. In 1930 two of us in 5 days actual fishing landed 104 fish averaging just under 3 lbs.—all mine except one 12 pounder were caught on 10 ft. rod, on Flies.'

'I cannot give you any recent "bags" on the Sonai or Loobah. Mr. C. E. Ewing has done very well up the former, but in recent years the Loobah "bags" have been very poor and it becomes necessary to go higher and higher every year to get good fishing, which adds considerably to the expense and time required.'

'I doubt if you will find in these notes much to encourage any one to make an expedition into Cachar for fishing purposes, but trust they will be of some interest to you. I fancy the country and fishing are very much like Upper Burma on the other side of the watershed, but are being ruined from a fisherman's point of view by increasing population.'

16. Further notes on the Cachar District by C. E. Ewing, Esq., 3-5-'32.—'My personal experience only extends to one district of Assam-Cachar and I have only experience of fishing one small river, the Sonai, a tributary of the river Barak. Mr. W. E. D. Cooper, I understand, is writing you regarding fishing prospects in other rivers in Cachar of which he has had considerable experience, so I will confine myself to the Sonai river which I know best. Before dealing with the details of the Sonai river, I would like to say that good fishing is only obtainable by several days journey up the river from Silchar and no organisation exists whereby outsiders can receive help in arranging boats, crews, etc.; and boats are essential, as no other means exist whereby one can reach the fishing waters. With the increase in population more land is being opened up along river banks, which means that one has to go further and further up the rivers each year to reach good undisturbed fishing water.'

'The Sonai is a small river rising in the Arrakan Hills, its course South to North, when it eventually joins the river Barak at Sonai Mukh, 12 miles from Silchar. This river suffered badly during the severe floods in 1928, from landslides but is improving again gradually. The best time of the year for fishing is between the months of November and February; during the rains the river is high and extremely muddy. I have had very good sport indeed on this river for several years. Dense jungle growing down to the river bed makes fishing only possible from a boat. Fly fishing, with Yellow Spider, Clavet and Mallard, and Blackamore, and underhand casting with spoons (Nos. 7 and 8) have been found to

be most successful. Being only a small river it does not hold very big fish, the largest landed was a Mahseer of 26 lbs., but several have been caught between 12 and 20 lbs. The only drawback to the river is that it abounds with snags—trees and logs that have slipped down into the river in the course of years, and any angler going up this river must be prepared to lose a lot of fish and tackle, so should have a good supply with him. The biggest bag made was in 1925 when two of us landed 100 fish weighing 550 lbs. in 5 days actual fishing—the largest fish 26 lbs. To an Angler who is not out for big fish lots of sport can be had with fish of 5 to 20 lbs. in the Sonai. The fish obtainable in this river are Mahseer, Carnatic Carp, Butcha and Fresh-water Sole.

'There is also lot of shooting available—jungle fowl and pheasants, pigeon, and duck and deer, both sambhur and barking. I have had very good shooting indeed up this river and can usually secure more than one's requirements every day for the pot. In fact for expeditions up this river take little in the way of stores and rely on success with the gun.

'I doubt whether you will find in these notes much to encourage any outsider to make an expedition up this river, but I trust that these notes will be of interest to you.'

'Locality. Cachar Rivers. Silchar is the jumping off-place for all of these, viz. :-Barak, Jhiri, Sonai and Loobah which are the principal protected rivers under the Surma Valley Fishing Association of which Mr. C. E. Ewing of Chingoor T. E., Binnakandy P.O., is Secretary.'

'Barak. This is the largest river and rises in Manipur. Small boats can be engaged in Lakhipur, distance by road from Silchar 18 miles and by river about 50, taking 2 or 3 days for small boats to get there. There is a rest house at Lakhipur, also a post and telegraph office. The best plan is to go by motor car or lorry to Lakhipur taking all kit and stores, which can be purchased at very reasonable prices at the Cachar Club Stores; stay the night in the rest house and start off early in the morning. There are good 'camping places' but it takes 3 or 4 days to get to the fishing parts. Once away from Lakhipur there are no post offices or rest houses. All information can be had from the Secretary of the Cachar Club. The best months for fishing the river are November to February.'

'There are large Mahseer in this river and the record Mahseer was about 60 lbs. (Gyles Mackreel's 56 pounder). Most of the pools give beautiful spinning, and the long ones can be trolled as there are few snags.'

'It takes 8 days to get to the Hatti Rocks which is usually as far as boats go, but it is possible to go beyond and the keen man is well rewarded.'

'Jhiri. This is a tributary of the Barak half a day beyond Lakhipur; but the bed is filled up very much with sand and very slow progress is made. It affords excellent Fly Fishing. October and November are the best months, as after that the water is short. The remarks given under Barak about arrangements apply here.'

'Sonai. This is another tributary of the Barak and goes into the Lushai Hills. Good catches have been made and there is excellent spinning, but is spoilt by the number of Snags. The same remarks apply as given for the *Barak*.'

'Loobah. This is a very interesting tributary of the *Barak* and unsurpassed for scenery. October and November are the months as water is short later on.'

'Boats can be arranged at Loobacherra by the manager of Loobah T. E., Kanaighat P.O. Stores can be provided at Silchar and then kit can be taken by train to Badarpurghat Station and by a 200 maund boat to Loobagnat where fishing boats are arranged.

'Two days up the river the junction of the Singli is reached and if there is plenty of water the Singli will give good fishing.'

'The Loobah is blocked by large rocks and the scenery is magnificent: both tributaries go into the *Cassiya Hills*.

'There is good Fly Fishing to be had, chiefly Carp on 'Yellow Spider''.'

'Mahseer and Carp are the only fish in these rivers except a very occasional trout. Any kind of spoon will do.'

17. Notes on Manipur, 13-4-'32.—A correspondent from Manipur State writes as follows:—'I am afraid I am not a fisherman and cannot give you much assistance.

'There are no really big rivers in Manipur. Small "Boka" Caro (Assamese name) and a few Mahseer can be caught in the Barak (Northern Hills), Thoubal (Eastern Hills), and Chakpi (Southern Hills,) and in some of the tributaries of the Barak in the South Western Hills. Best bait fly, small spoons or dead bait. Large Mahseer can be had in the Barak, and its larger tributaries, the Irang and Makru, in the Western Hills.'

The following notes are very kindly sent to me by the Curator of the Darjeeling Natural History Museum (Mr. Inglis) from his excellent journal.

These interesting notes deal with most of the varieties of fish to be taken, though some confusion arises in expression, by the different contributors, and it is as well to list the correct names of the fish referred to.

(I) The Greyhound type of Mahseer of Assam, my 'Golden Mahseer', is identified by Hora as the Putitora Mahseer (*Barbus tor*) putitora (Hamilton).

(2) The short gilled Mahseer as shown in the illustration of 30 lbs. '*Pukki Ranga*' is identified by Hora as the Tor Mahseer *Barbus tor tor* (Hamilton).

(3) The fish known as the *Boka* or *Katli* by some, and referred to as the Carnatic Carp by others, is *Barbus hexagonolopis*, probably my 'Chocolate Mahseer.'

18. Notes on a dark variety of Mahseer by E. O. S. (Journ. Darjeeling Natural History Society, Vol. VI. No. 2. Oct. 1031).— The sketches show:—(1) The head of an $8\frac{1}{2}$ lb. fish of the dark variety of Mahseer reduced to half size for comparison with the sketches of ordinary Mahseer sent recently. This is a thick lipped fish. (2) An outline sketch to scale ($\frac{1}{2}$) of an 8 lb. 'greyhound' Mahseer (above). and the $8\frac{1}{2}$ lb. dark fish below.

I compared the dark fish with other Mahseer ('greyhound' and 'ordinary') at the same time (Sankos, 22nd February 1930) and with *Kath*. The impression which this comparison made on me, at the

time, is best described by saying that:—If the dark fish had been compared with a Mahseer alone, it might have been taken for a

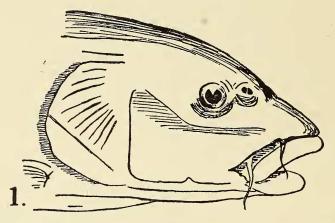


Fig. 1.—Head of Mahseer (dark variety) $\times \frac{1}{2}$. This is a thick-lipped specimen $\times \frac{1}{8}$.

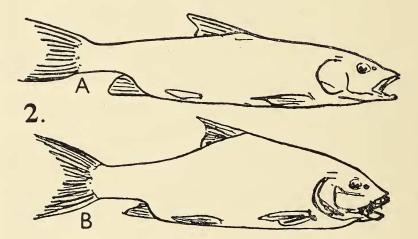


Fig. 2.—A. Outline of ordinary Mahseer, 8 lbs. B. Outline of dark variety; $8\frac{1}{2}$ lbs. $\times \frac{1}{8}$. (Journ. Darjeeling Nat. Hist. Society Vol. VI, No. 2, Oct. 1931.)

(Journ. Durjeeung Nut. 11151. Society Vol. VI, No. 2, Oct. 1931.)

Katli and if with a Katli alone it would undoubtedly have been pronounced a Mahseer. The dark fish, in other words, is in appearance, as nearly as possible, half way between what we believe to be the typical Barbus tor and what we believe to be Barbus hexastichus.

The dark fish, or this specimen at any rate, was in shape far more like a *Katli* than a Mahseer. The fins were partly the yellow of the Mahseer and partly the slate colour of the *Katli*—the general colour of the fish was intermediate but the eye was golden, as in the Mahseer; only one spot on one iris was copper as in the Katli, but this may have been blood-shot. There were no tubercles on the upper lip. ¹I do not remember to have seen this variety with thick lips before, and this is one of the reasons which makes me believe that this is a seasonal sexual change. My other reasons are:—

 $^{2}(1)$ That in fish which seem exactly alike in all other respects, the mouth parts of one may be swollen out of all proportion.

(2) That, I think but am not sure, I have only seen these thicklipped fish caught late in the season from February onwards. O'Donel, however, says he has caught them in the Nunai River as early as November.

(3) That thick-lipped fish usually have a lot of red on the fins. This apparently does not apply to the dark variety.

³That the swelling is not uniform in different thick-lipped fish. The lips are always thickened but in some fish the swelling extends to the snout while in others it seems to affect the lower lip more, causing a sort of flap of flesh like an imperial. A still more pronounced type, which I have never seen myself, has these flaps apparently on both lips, as shown in one of the illustrations facing page 32 in Thomas' 'Rod in India'.

At present I feel that the distinction between what I have called 'Greyhound' and 'ordinary' Mahseer is a far less fundamental one than that between either of these varieties and the dark form—but possibly further observations, on the rivers, may cause me to change my opinion.

I should be very glad of the observations of other fishermen.

[The head of a 'greyhound' type of fish may be seen on page 89, Vol. IV, No. 4 of this Journal.—Editor].

19. Mahseer Fishing in the Bengal and Assam Dooars, by C. E. S. Fairweather, I.P. (Journ. Darjeeling Nat. Hist. Soc., Vol. VI, No. 4, April 1932).—Mahseer have no shaply defined spawning season like salmon and trout. They are, as the late H. S. Thomas ('Rod in India' by H. S. Thomas, I.C.S.) said, like the barnyard fowl: they lay their eggs a few at a time and they are never in better condition than when spawning or looking for an opportunity to spawn.⁴ It is this search for spawning grounds that regulates our fishing seasons. Mahseer can be caught at any time of the year, provided one knows where they are to be found, but the other important proviso is that in order to catch them the condition of the river must be suitable. It is hardly of any use fishing for Mahseer

¹ The 'Copper' variety have modified thick lips. See illustration in Burma chapter.

² This is the thick lip variety.

³ I have taken some hundreds of these thick-lipped fish, in all sizes from ¹/₂ lb. to 40 lbs., and in every month from Feb. to Oct. from the Mahl River and Ihelum in the north-west along the Himalayas, through Nepal to Burma, but I have never yet seen one with so pronounced an adipose extension, as shown by Dr. Day's plate produced in the 'Rod in India.' The plate of the Thick lip Mahseer in the Burma Chapter is representative, and there is no 'flap' or adipose extension on the upper lip, at least I have never seen one. A. M. ⁴ I disagree with Mr. Thomas that Mahseer are at their best while spawning.

⁴ I disagree with Mr. Thomas that Mahseer are at their best while spawning. In late April and May in some rivers, when the main spawn begins, fish will be taken that offer no sport whatever. I say 'Main spawn', because all the varieties of fish are then found gravid,

E. O. S.

(except with live bait) unless the water is clear—the clearer the better. Unless one can see the pebbles on the bottom in four feet of water, fishing for Mahseer is likely to be a heart-breaking business.¹ I refer of course to spinning for Mahseer.

The Mahseer, according to such observations as anglers have been able to make, apparently requires certain conditions for spawning.

(a) The water should be warmer than that of the usual glacier-fed river.

(b) The water should be shallowish and sheltered. In the big rivers like the Teesta, Sankos and Monas the water is cold, even in the plains, for a considerable distance below the gorges. These rivers begin to rise early in April when the snows melt; Mahseer which have found the shallow backwaters among the chars (miles below the gorge)—ideal places for spawning—now find the chars submerged and begin to move up towards the hills, where they find excellent spawning grounds in the various hill streams which have begun to flow again with the early rains. These small streams too are warm, coming off the hot sides of the lower ranges of hills. The fish apparently travel up these small streams to spawn when a spate comes down and drop back to the main river when the spate clears off.

The Teesta. The Mahseer hang about round the mouths of the Sevoke, Kalijhora, Reang and Gill Jhora, which run into the Teesta. There are perennial spawning places. As I said above, fish are there to be caught all the time. The difficulty is to find the water in proper The Teesta itself is foul and unfishable from April until trim. January or February and it remains clear only for a few weeks before the snow water again begins to come down. When, however, there is a break in the rains, the small hill streams clear and where they join the Teesta there is a belt of clear water for a considerable distance before it merges into the Teesta and gets 'sicklied over with the pale hue of chalk'. In this belt of clear water one can catch really good fish. It may happen that one gets a spell of rainless weather in July or August but one can never count on this. The best season therefore is from mid-September onwards, when the rains are beginning to stop and the hill streams are yet still fairly full and clear. The peculiar thing about these large rivers like the Teesta, Sankos and Monas is that away from the mouths of tributaries Mahseer are very hard to find. This is particularly the case with the Teesta but the Sankos and Monas, too, away from tributaries, are almost impregnable except under the most favourable conditions. The fish move upwards as soon as these rivers rise in April and move down again from the end of September. In the early season, March-April, the only mouth worth fishing is Reang. There is sufficient water here to keep the fish. In the September season they are good, *i.e.* there is enough clear and warm water flowing in the river to attract the spawning fish. As I said before, one can fish all the year on the Teesta but conditions from July to mid-

¹ This has not been my experience, and I am inclined to agree with Mr. Martin, though clear water is of course the best,

September are so uncomfortable and uncertain that few people would care to bother: torrential rain, wet jungle, fever, leeches, etc. and the difficulty of choosing a time when the small stream is likely to clear. For those living at a distance this is impossible.

Fishing these tributary mouths is not very exciting. There is only one spot fishable, and generally out of 12 days fishing one has 5 or 6 blank days. When one gets a fish it is usually a good one and puts up a tremendous fight, aided by the full force of the Teesta current. No flimsy tackle is any good here. One needs almost 200 yards of line-'Y' stout Tiger traces and a stout rod and line. For rod a Hardy's, Murdoch or something similar is about right. Spoons up to 3" or 4" seem best, although I have seen some pretty sport on a Castle Connel Salmon rod-gut trace and fly spoon. This latter at Sevoke: at Reang and Kalijhora, however, one needs to hold the fish a bit harder. On a really good day, if two rods get 3 fish from the pool in the morning and perhaps one or two in the evening they have done very well indeed: next day they will probably come back from the river with nothing but a brace of backaches.

The Sankos. On the Sankos conditions are very much the same. There is a bund on the Sankos to the north east of Sankos Tea Estate, where a side stream comes in. Morning and evening one can get 2 or 3 fish and good fish too. About 1/2 mile below this spot a small overflow runs into the river again and here too a few fish can be had. I have however fished many other pools on the Sankos, where there is no tributary of warm water running in, without finding any traces of fish. Opposite Barabisha there is a tributary which comes in from the Assam side of the Sankos-some great catches have been recorded here, I believe.

The Monas. On the Monas my experience was the same. Away from the streams of warm water running into the big river, fishing seemed a mere waste of energy. Where, however, one did find a good spot with a 'run in', the fish seemed to lie about in shoals-large fish. It is however not much use trying to fish the Sankos or Monas before February unless one knows a place where a good stream of clear water runs in. These two rivers are also not so accessible as the Teesta.

¹The ideal fishing conditions are:—

(1) A clear sky.

(2) No wind.

(3) Good clear water.

²Wind is the Mahseer fisherman's worst enemy. I attribute the difficulty of fishing these big rivers chiefly to the howling wind, which blows almost ceaselessly down or up the river day after day. On these rivers the wind starts generally about 9 or 10 a.m. and in the most favoured spots one should be on the water just after dawn.

¹ For ideal conditions, yes ! ! I took the largest Mahseer I have caught (75 lbs.) during a thunder storm when a gale was blowing. ² This occurs in N. India and Burma, too, on the large rivers, but blows down stream in the morning and up stream in the evening. The days are quite often calm, It is known as the 'Dadu',

The wind starts about 9 or 10 a.m. and does not drop till about $1\frac{1}{2}$ hours before dusk. These last $1\frac{1}{2}$ hours are generally good. From 10 a.m. till 3 p.m. one's best plan is to eat and sleep. To fish is mere waste of energy, as the fish seem to go right down the moment the wind starts.

It will be gathered from the foregoing that I am not particularly enamoured of these big rivers.

The most enjoyable fishing of all is in the smaller rivers like the Jaldaka, Torsa, Rydak, Champamati and the Aie. They all have their peculiarities but they have the advantage of being fishable from the gorges far down into the plains until sand and shingle give way to mud. One can fish with a light rod and fly spoon or use a medium rod—spinning reel and 2'' or $2\frac{1}{2}''$ spoons, or both alternately, wandering down from pool to pool.

The Jaldaka and Torsa. The Jaldaka and Torsa have not fished well for years. This is due, I think, to excessive netting in the lower reaches and poaching in the higher reaches. The fish too are very shy. In the Jaldaka 'Catli' seem to predominate. The 'Catli' (Assam *Boka*.) is of the carp tribe, like the Mahseer. He has a smaller mouth and smaller scales, while the iris of his eye is red and not yellow like the Mahseer's. He takes a fly spoon well.

Some good fish have been taken at the junction of the Jaldaka and Murti above Ramshahi Hat. The Jaldaka was a famous river at one time but nowadays I would never make a special trip there to fish.

The Torsa is a fairly big river and does not clear properly before November. By that time the weather is getting too cold for the best fishing. When one is getting good Mahseer fishing, one is generally in a 'lather of sweat'. If one is not, then conditions are not at their best. The Torsa has not fished well from all accounts since it left its old bed, which runs past Madarihat Railway Station. I have not heard of any one making any good bags for a long time. Mr. Webb of Hasimara Tea Estate, I believe, catches good fish during the rains with a live bait picketed. Spinning of course is impossible at that time. The Torsa can be fished from either Madarihat or Nilpara Forest bungalows.

The Malang. At Nilpara there is a fascinating little stream called the Malangi, where one can have a really good time with a trout rod, fine gut trace and small fly spoons—fishing is not too easy, as the banks are heavily wooded. Surprising bags of fish up to 5 lbs. or over can be made.

The Rydak. The Rydak is one of the best streams I know. It can be fished from Bhutan Ghat (at the gorge), from Dumpara Ghat (on the Jainti-Kumargram Road) or farther down at Teamaree Ghat. It does not clear much before November but excellent fishing can be had from then onwards until the snow water comes down again in April. It holds very good fish up to 40 lbs.—fish of 7 to 10 lbs. are fairly common. In November-December-January, the reaches below Bhutan Ghat are better but when the river level falls in February, March, April, the best fishing is above Bhutan Ghat in the deep rocky pools of the gorge. One requires a medium spinning rod—the best spoon seems to be about 2 ins. or $2\frac{1}{2}$ ins,

The movements of Mahseer in this river are fairly well known, owing to the fishing trap used by the Bhutias. Every year they put a slanting barricade across the river, which allows the water to get past gradually through the slats but keeps back all fish of any size. These soon find themselves at the end of the barrier, where the water is led on to a platform of split bamboo; there the fish are left high and dry. If they are not dry, then the Bhutias, who kill them in thousands, soon see that they are dried and taken up the hill for food. They intercept the fish in this way just after the rains when they are making their way down to the chars and other spawning places. Fortunately for the fish and for other fishermen it is not always possible for the Bhutias to get this trap across in time to intercept all or even most of the fish. Still, the destruction is immense and I consider that the Rydak is beginning to deteriorate rapidly. Ι cannot of course say how long this fish trap has been used by the This trap is called a 'teep' and there are two places where Bhutias. it is generally located-about 3 miles and 5 miles respectively above the boundary line. This trap, I am sure, has a lot to do with fishing conditions in the Rydak, which fluctuate astonishingly. On 'my last visit to the Rydak I found no trap at the lower site. I did not know then about the upper site. While I was fishing there a friendly Bhutia came along and told me that 'teep' had been fixed at a site higher up and that none of the big fish could get down below it. He offered to take me to some fine pools above the 'teep' and seemed to think that I was only wasting time below. The Rydak however will always get a certain number of fish from the Monas, into which it flows; the number of fish coming up depends a great deal on the angle at which it strikes the Monas, whether it runs in over shallows or whether it runs into the deep side of the Monas. As these conditions vary from year to year, this is another important reason for fluctuations in fishing conditions.

Till 1923 both channels of the Rydak joined at Teamaree Ghat but in that year the Eastern Channel thrust its way across country directly towards the Monas and threw up a large bank of shingle between itself and the Western Channel. Since then fishing has never been so good. Apparently the mouth of the Western Channel used to provide a better entry for fish. In 1923 the Western Channel almost dried up, so that fish which had dropped down must have found the entrance silted when they tried to get up again. There is a similar case to this in the Isla and the Tay in Scotland. The mouth of the Isla used to present a direct line to incoming salmon and sea trout, and many, if not most, of the fish used to go up the Isla in preference to the Tay.

The mouth of the Isla was then artificially altered, so that nowadays not more than one or two fish seem to enter the Isla.

The Champamati. Another delightful river as we proceed eastward is the Champamati. It is about half the size of the Rydak. It does not clear properly until Christmas. The best months are March and April. Mahseer up to 25 lbs. are caught now and again but the chief sport is got with 'Cutli', which in this river are the finest fighting fish I have met in India. At Ranikhata a 2 in. gold and silver spoon seems best but down below at Gorubasha an all silver $2\frac{1}{2}$ in. spoon seemed to do best. The average for both Mahseer and 'Cutli'

seems to run about 4 lbs. The 'Cutli' spin round at such a rate and twist up mounts and traces so badly that I had to contrive a mount attached to the spoon ring with a swivel. This seems the only effective way of dealing with these doughty fighters. The banks are heavily wooded, and casting is not always easy but some very fascinating fishing can be had with a light rod and fly spoons used with a dressed silk line. Hardy's 11 ft. 'Wye' rod (for Sea trout and small salmon) seems about right for this work. For spinning, the Corbett No. 1 rod is most suitable here.

The Aie. Still moving eastward one comes to the best river of all, the Aie, which provides about 30 miles of the most delightful fishing in a succession of runs and pools. The best of the fishing (about 14 miles) lies in the forest area from the gorge down to Burree Jahr. The water of this stream is distinctly warm. It clears almost invariably from mid-October or immediately the rains cease. It is almost impossible to have a blank day on this river. The fish are not very big-the biggest I have heard of are about 21 and 22 lbs. Perrée caught a fish over 30 lbs. in a pool known as Perrée's pool Editor]. Later on I will give a few sample catches. The fishing is best in October-November before the cold winds start. If the rains are late one should fish the upper reaches in October-November, as the bigger fish are now down much more than to miles from the gorge by then. In February, March, April one must fish either near the gorge and above Dausri or well below Burree Jahr, as the river between Dausri and Burree Jahr disappears in the hot weather completely. Where one starts to fish this river in the hot weather two days spent exploring are not wasted, as owing to frequent changes of bed one can never be quite certain where one is to find the fish. This applies however to most of these Indian hill rivers.

Indian rivers have their good and bad days just like the more civilized streams of the West. All the fish seem to make up their minds at the same moment to stop biting. The theory is that this is due to some sudden deficiency of oxygen in the water. This deficiency may be due to several causes :—

(a) Low barometric pressure, which causes a sudden decrease of oxygen.

(b) A heavy fall of rain, which washes dead leaves and rotten vegetation into the river.

(c) Snow water, which drives out oxygen.

Lack of oxygen paralyses the fish and they simply lie still under stones on the bottom.

In such conditions Mahseer very often leave deep pools and go into the shallows, where the water rushing over boulders and pebbles is slightly aerated. They also lie right up under a waterfall. These observations are purely guess work and are meant only to provide some sort of Rule of Thumb to guide one to likely spots on a 'real bad day.'

When a wind is blowing it is no use fishing on wide wind-swept stretches of river—seek sheltered corners, if they are to be found. As one moves along from corner to corner one can pick up a fish here and there and can spot likely places when travelling up the river which one can fish when conditions are more promising.

CIRCUMVENTING THE MAHSEER

Now as regards the kind of sport one can expect. I give below a few extracts from my records:-

		No. of days	No. of fish	Total	Biggest Dates
Year	River	fishing	caught	weight	fish
1919	Aie	23	154	406	20 lbs. 20.10 to 11.11
1920	Monas	1 9	18	203	37 lbs. 18.3 to 5.4
1921	Teesta	11	11	140	32 lbs. 6.10 to 16.10
1922	Teesta	15	29	179	21 lbs. 23.9 to 7.10
1923	Torsa	15	21	25	6 lbs. 13.10 to 27.10
					Water not clear
,,	Rydak	7	33	133	26 lbs. 27.11 to 3.12
1924	Rydak	28	80	236	13 lbs. (Various dates)
1925	,,	43	94	507	$\begin{cases} 40 \text{ lbs} \\ 38 \text{ lbs.} \end{cases}$ 19.2 to 14.
1926	Aie	14	125	280	10 lbs. 24.10 to 5.11
1927	Aie	10	103	353	$\{\frac{19 \text{ lbs.}}{9\frac{1}{2} \text{ lbs.}} \} = 6.11 \text{ to } 15.11$

Some 8 catches, which would be considered quite good days on the various rivers.

1919—Friday 31st October—Aie (Burree Jahr) 32 fish weighing $89\frac{1}{2}$ lbs. and lot about 20 others. 1024 March (early)-Peddie's Catch-Aie (Hatishar)

1924 — March (early) — Peddie's Catch — Aie (Hatishar). (1) Ma $-20-5-4-1\frac{1}{2}-1-1-\frac{3}{4}-1\frac{1}{4}-6\cdot1\frac{1}{2}.$ (2) ,, $-22\cdot21-3-3-3-1-\frac{3}{4}.$
(2) ,, $-22 \cdot 21 \cdot 3 \cdot 3 \cdot 3 \cdot 3 \cdot 1 \cdot \frac{3}{4}$. 1920— Thursday-March 1st—Monas—1 Mahseer—37
1 , -15
1 ,, <u>—16</u>
$ \begin{array}{ccccccccccccccccccccccccccccccccccc$
(Dotal 5 74 the
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1920 Friday March 2nd—Monas Mahseer—19-19- $4\frac{1}{2}$ Total 3 Fish = $42\frac{1}{2}$ lbs.
1921—Sunday October 9th—Teesta (Reang) Mahseer—16-14 Total 2 Fish=30 lbs.
1922 Wednesday September 27th—Teesta (Sevoke) Mahseer $-2-4-6-3-1-3-6-4-2$ Total 9 Fish $= 31$ lbs.
1922 Tuesday October 3rd—Teesta-2 hours fishing (Savoke) (afternoon) Mahseer—18-8-3-2 = 4 fish=31 lbs.
1923 November 28th-Rydak (Teamaree Ghat)
Mahseer—26-6½-6-4-3-2-1 Cutli—4-3½
$T_{\text{otal}} = 10^{-2}$ Total $10 = 56$ lbs.
1925 February 24th-Rydak (Bhutan) (Ghat)
Mahseer $-40-38-6\frac{1}{2}$
Cutli $3\frac{1}{2}$ Total $4=88$ lbs.
1927—February 23rd—Champamati [Gorubhasa]
Mahseer— $(\frac{1}{2}-9-4-2-2)$ 11 fish.
Cutli — $7-5-4-3-2-2 \int 49\frac{1}{2}$ lbs.
1927—November 3rd—Champamati [Gorubhasa] Caught by Nelson—1 Cutli=25 lbs.
[This is a specimen Cutli for this part of the world.]

	River		Av. No. of fish caught per day	Av. weight of fish caught per day	Biggest
Aie		•••	8	21	20, 17
Rydak			3	$11\frac{1}{2}$	40, 38, 26, 16
Teesta			$1\frac{1}{2}$	12	32, 24, 21
Monas	•••		1	111	37, 21, 19, 19
Torsa	•••		$1\frac{1}{2}$	$1\frac{2}{3}$	6 lbs.

Champamati—My figures not worked out. But in April 1926, 5 rods [Godden, Hulton, Bor, Brunbes, Burke] got 147 fish = 450 lbs. in 4 days. A.L. Godden himself got 67 = 220 lbs. in these 4 days on 73 Victor Rod with fly spoon.

Champati [A. L. Godden]—Best day $17 = 85\frac{3}{4}$ lbs.

20. Note on Mr. Fairweather's Fishing Notes by O. M. Martin. (Journ. Darjeeling Nat. Hist. Soc., Vol. VI, No. 4, April 1932).—I don't agree that very clear water is necessary for Mahseer fishing. All the Mahseer I have caught in the autumn have been caught in water in which the pebbles could not be seen more than a foot deep. When the water got clearer than this, the Mahseer refused to bite. I caught one fish of $12\frac{1}{2}$ lbs. on a spoon in very muddy water at Reang this October. I got two fish and lost another at Singla in water by no means clear in the same month. The water should be (1) warm and (2) not too muddy for the Mahseer to see the spoon.

I believe that the Mahseer in the cold weather start to take when the water temperature rises and that a sudden drop in water temperature puts them off their feed at any time of the year.

They also go off condition after spawning—as other fish do. They are in better condition in November than they are in October and are at their best in March-April—at least in the Teesta and Rungneet. They are so vigorous in March at Singla Bazaar that they will on occasion jump out of the water like salmon.

Darjeeling,

16-12-'31.

Total fish caught

21. Mr. Ritchie's Notes on Fishing on the Teesta River. Complete Summary of the Teesta River. 1909-1930. (Journ. Darjeeling Nat. Hist. Soc., Vol. VI, No. 1, June 1931).

Average weight

266 fish weighing $2,269\frac{3}{4}$ lbs., best fish 54 lbs. (in lbs.) 8.5 Summary by Localities. Rungneet-Teesta Bridge portion 6 fish $35\frac{3}{4}$ lbs., best $14\frac{1}{4}$ lbs. 5.9 Riyang Area 133 ,, $1,481\frac{1}{2}$,, ,54 , 11.1 Kalijhora 13 ,, $142\frac{1}{4}$,, ,37 ,, 10.9 Sevoke 104 ,, $495\frac{1}{4}$,, $14\frac{1}{2}$,, 4.8 Duars and Jalpaiguri portion 10 ,, $114\frac{1}{2}$,, $4.5\frac{1}{4}$,, 11.4 Summary by Years. 10 ,, $114\frac{1}{2}$,, $4.5\frac{1}{4}$,, 11.4 909. 4 fish 14 lbs. best $7\frac{1}{2}$ lbs. 1910. 1 ,, $1\frac{1}{2}$,, , 5 ,, 1912 1913. 5 ,, $19\frac{1}{2}$,, , 6 lbs. <th></th> <th></th> <th>1014</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>, er us</th> <th></th> <th>fish.</th>			1014										, er us		fish.
Rungneet-Teesta Bridge portion 6 fish $35\frac{3}{4}$ lbs., best $14\frac{1}{4}$ lbs. 5.9 Riyang Area 133 ,, $1,481\frac{1}{2}$,, , , , , , 54 , 11.1 Kalijhora 133 ,, $1424\frac{1}{4}$,, , , , , , 37 ,, 10.9 Sevoke 104 ,, 495\frac{3}{4} ,, , , 14 $\frac{1}{2}$,, , , , 45 $\frac{1}{4}$ 11.4 Summary by Years. 1004 ,, 495\frac{3}{4} ,, , , , 45 $\frac{1}{4}$ 11.4 Summary by Years. 1004 ,, 495\frac{3}{4} ,, , , , 45 $\frac{1}{4}$ 11.4 1909. 4 fish 14 lbs. best $7\frac{1}{2}$ lbs. 1910. 1 ,, , , 1 $\frac{12}{2}$,, , , , , , , , , , , , , , , , , , ,					$69\frac{3}{4}$ lbs.,				,					(in	lbs.)
Riyang Area 133 ,, 1,481 $\frac{1}{2}$,, 54 ,, 11.1 Kalijhora 13 ,, 142 $\frac{1}{4}$,, 37 ,, 10.9 Sevoke 104 ,, 495 $\frac{3}{4}$,, , 14 $\frac{1}{2}$,, 48 Duars and Jalpaiguri portion 10 ,, 114 $\frac{1}{2}$,, 45 $\frac{1}{4}$,, 11.4 Summary by Years. 100 ,, 114 $\frac{1}{2}$,, 45 $\frac{1}{4}$,, 11.4 Summary by Years. 100 ,, 114 $\frac{1}{2}$,, 45 $\frac{1}{4}$,, 11.4 Sumary by Years. 104 ,, 495 $\frac{3}{4}$,, 145 $\frac{1}{4}$,, 11.4 Sumary by Years. 105 1910. 1 ,, 1 $\frac{1}{2}$,, 1912. 1 , 32 ,, 1913. 5 , 19 $\frac{19}{2}$	Summary	by	Locali	ties.											
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Summary by Years. * 1909. 4 fish 14 lbs. best $7\frac{1}{2}$ lbs. 1910. 1 , $1\frac{1}{2}$, 1 1911. 3 , 9 , , 5 , 1912. 1 , 3^2 , 5 , 1 <							•••		,,		,,	,,	$14\frac{1}{2}$,,	4.8
1909. 4 fish 14 lbs. best $7\frac{1}{2}$ lbs. 1910. 1 ,, $1\frac{1}{2}$,, , <td< td=""><td>Duars a:</td><td>nd</td><td>Jalpai</td><td>iguri po</td><td>rtion</td><td></td><td>•••</td><td>10</td><td>,,</td><td>$114\frac{1}{2}$</td><td>,,</td><td>,,</td><td>$45\frac{1}{4}$</td><td>,,</td><td>11.4</td></td<>	Duars a:	nd	Jalpai	iguri po	rtion		•••	10	,,	$114\frac{1}{2}$,,	,,	$45\frac{1}{4}$,,	11.4
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1912. 1 ,, 32 ,, 1913. 5 ,, $19\frac{1}{2}$,, ,, 6 lbs. 1916. 1 ,, $14\frac{1}{2}$,, 6 lbs.	1910.	1	.,	$1\frac{1}{2}$,,										
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1916. 1 ,, $14\frac{1}{2}$,,	1912.		,,		,,										
			,,		,,	,,		6	lbs.						
$1917. 2 \dots 7\frac{1}{4} \dots 4\frac{1}{4}$ lbs.			,,		3.3										
			,,	71	,,	۰,		4늘	lbs.						
1918. 18 ,, $115\frac{1}{4}$,, ,, $14\frac{1}{2}$,,	1918.	18	22	1154	2.1			141	· · ·						

Average weight per fish

Summary by Years	(cont.)							Ĩ	er fish	
1919. 46 fish	$220\frac{3}{4}$	lbs.	best	$29\frac{3}{4}$	lbs					
1920. 7 ,,	1201		,,	38	,,					
1921. 47 ,,	436_{4}^{1} 160		**	54 33者	,,					
1922. 15 ,, 1923. 35 ,,	1873	,,	**	32	""					
1923. 55 ,, 1924. 6 ,,	28	,,,	,,	24	,,					
1925. 26 "	$283\frac{1}{4}$,,	,,	45_{4}	,,					
1926. 12 ,,	$86\frac{1}{4}$,,	,,	18	,,					
1927. 6 ,,	57 ¹ / ₄	,,	>>	$16\frac{1}{2}$ 36	,,					
1928. 10 ,, 1929. 8 ,,	77 <u>년</u> 914	,,	**	$18\frac{1}{2}$,, ,,					
1929. 8 ,, 1930. 13 ,,	$307\frac{3}{4}$, , , ,	,, ,,	39	,,					
Summary by Months.										
Jan. 4 fish	27월	lbs.	best	151	lbs	s.			6.9	
Feb. 17 ,,	841	,,	,,	$13\frac{1}{2}$,,				5.0	
Mar. 40 ,,	1754	,,	,,	141	,,				4.4	
Apr. 33 "	$\frac{302\frac{1}{2}}{246^3}$,,	,,	$45\frac{1}{4}$ 38	,,				9.2 16.4	
May 15 ,, June 1 ,,	$246\frac{3}{4}$ 5	"	,,	50	,,				10.4	
July 3 ,,	45½	,, ,,	,,	$21\frac{1}{2}$,,				15.1	
Aug. 23 ,,	$202\frac{1}{4}$,,	,,	54	• • •				8.8	
Sept. 47 ,,	$343\frac{1}{4}$,,	,,	341	,,,				7.3	
Oct. 65 ,,	747	,,	,,	39					11.5	
Nov. 6 ,,	39	,,	,,	$\frac{11\frac{1}{2}}{7}$,,				$6.5 \\ 4.3$	
Dec. 12 ,,	$51\frac{1}{2}$	**	"	1 .	,,				4.0	
Summary by Baits.		000 0.1	1 0401	11-0 1	ogt	E4 lba			7.0	
Spoon	• •••	236 fish	1,6494						$7.0 \\ 17.3$	
Natural Bait Artificial Baits	•••	4	71	,, ,,	,, ,,	40 ,, 35 ,,			17.8	
Atta	•••	17 ,,	393 ¹ / ₂	,,	,, ,,	$45\frac{1}{4}$,			23.2	
			_							
Spoon Analysis. No. 3 or 1 in. size						,				
all silver				3 1	fish	3 lbs.	best	1½ lbs.	1.0	
No. 4 or 11 ins. si	7.8-									
all silver	20			5 f	ish	12¼ lbs.	best	-8 lbs.		
brass and silver	•		•••	6	,,	$3\frac{1}{4}$,,	,,	3 1,		
				11	,,	15½ ,,	,,	8 ,,	1.4	
No. 5 or $1\frac{1}{2}$ ins. si	ze-									
all silver		•••	•••		ìsh	18½ lbs.	best	4 lbs.		
brass and silver		•••		$\frac{24}{4}$	"	$71\frac{3}{4}$,, $20\frac{1}{2}$,,	,,	$9\frac{3}{4},$		
silver and brass	6	•••	•••	36	, ,	1103	,,	191	3.1	
AT 61 161				50	17 -	1104 ,,		142 ,,	5.1	
No. $5\frac{1}{2}$ or $1\frac{5}{8}$ ins.	size-			3 f	ish	28 <u>1</u> lbs.	best	$14\frac{1}{2}$ lbs.		
all silver brass and silver		•••	•••	0	1,511	$28\frac{3}{4}$,	,,	13^{112} ,		
Diass and silver		•••		19		571		1/1	4.8	
NT C				10 1		5/4 ,,	,,	142 ,,	1.0	
No. 6 or $1\frac{3}{4}$ ins. si all silver				14 f	ìsh	$77\frac{1}{2}$ lbs.	best	$12\frac{1}{2}$ lbs.		
brass and silver		•••			,,	$17\frac{1}{4}$,,	,,	12 ,,		
silver and brass				1	,,	$11\frac{1}{2}$,,	· ·	.,		
				1 17		$106\frac{1}{4}$,,	,,	$12\frac{1}{2}$,,	6.3	
No. 7 or 2 ins. siz	ze—									
silver and brass					ìsh	$47\frac{1}{4}$ lbs.	best	141 lbs.		
all silver		•••	•••		,,	51,,	,,	21,,		
copper and silv	er		•••	14	"	61 <u>3</u> ,	,,	7 ,,		
				25	,, l	141,,	,,	14¼ ,.	4.6	

345

Average weight per fish.

Spoon Analysis (cont.)	per ti	isn.
No. 7½ or 2¼ ins. size—		
silver-scaled and copper	2 fish $23\frac{1}{4}$ lbs. best $14\frac{1}{4}$ lbs. 1	1.6
No. 8 or $2\frac{1}{2}$ size—		
all silver	54 fish $498\frac{1}{2}$ lbs. best 38 lbs.	
silver-scaled and copper	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
silver and copper	14 951 25	
brass and silver silver and brass	10 573 111	
brass-scaled and silver	\dots 10 ,, 574 ,, ,, 112 ,, \dots 2 ,, 5 $\frac{1}{2}$,, ,, 4 ,,	
Sittis Sector and Sitter	99 , $859\frac{1}{2}$, , 54 ,	8.7
No. $8\frac{1}{2}$ or $2\frac{3}{4}$ ins. size—		
all silver	\dots 5 fish $45\frac{1}{2}$ lbs. best 18 lbs.	11.1
No. 9 or 3 ins. size-		
all silver	\dots 5 fish $23\frac{3}{4}$ lbs. best 9 lbs.	
silver and brass	$\dots 4 , 31\frac{3}{4} , , 14 ,$	
brass and silver	$\dots 1$, $5\frac{1}{2}$,	
silver-scaled and copper	3 ,, 70 ,, ,, 37 ,,	
	13 ,, 131 ,, ,, 37 ,,	10.1
No. 10 or $3\frac{1}{2}$ ins. size—		
silver and brass	7 fish $146\frac{3}{4}$ lbs. best 38 lbs.	
all silver	3 ,, 9 ,, ,, 5 ,,	
	10 ,, 155 ,, ,, 38 ,,	15.6
No. 11 or 4 ins. size—		
all silver	1 fish $\frac{3}{4}$ lb.	
all scarlet	$2, 26\frac{1}{2}, best 21\frac{1}{2}$ lbs. $3, 27\frac{1}{2}, 21\frac{1}{2}$	~ ~
	$3, 27\frac{1}{4}, , , 21\frac{1}{2}, $	9.9
Spoon Summary.		
Light spoons, Nos. 3 to 7	7 104 fish 407 lbs. best $14\frac{1}{2}$ lbs.	3.9
Heavy spoons, Nov. 71 to	$p 11 \dots 132 , 1,242\frac{1}{4} , , , 54 , $	10.2
Best Days.		
Oct. 10, 1930. Riyan	g. 2 fish of 31 and 24 lbs.	
Aug. 23, 1921. ,,	1 ,, 54 lbs.	
Oct. 8, 1930. ,,	2 ,, 35 and $12\frac{1}{2}$ lbs.	
April 4, 1925. Jalpai	iguri. 1 ,, 45_4 lbs.	
Dec. 8, 1925. Sevok	2 26 and 5 tha	
Oct. 14, 1928. Riyan	9 941 and 151 lbs	
Oct. 12, 1930. ,, Oct. 6, 1930. ,,	1 00 11-	
Oct. 0, 1930. ,,	1 ,, 39 IDS.	

Recent Fishing.

Snoon Analysis (cont.)

Result of a month's fishing at Riyang, September 15th to October 14, 1930.
13 fish weighing 307⁴/₄ lbs.. best fish 39 lbs.
Average weight per diem 10.6 lbs.
Average weight per fish 23.7 lbs.
Total fish hooked—31, or an average of about one per diem.
Number of fish lost—18.
Number of absolutely blank days (no sign) -7.
Best day—55 lbs. (24 and 31). Next best—17¹/₂ lbs. (12¹/₂ and 35.)
Maximum number of fish hooked on any one day (not mere rises)—3.

Large Mahseer. Altogether 42 fish of 15 fbs. and over were taken, viz., 54, $45\frac{1}{4}$, 39, 38, 37, 36, 35, $34\frac{1}{2}$, $33\frac{3}{4}$, $33\frac{1}{2}$, 32, 32, 31, $30\frac{3}{4}$, $29\frac{3}{4}$, 28, $24\frac{1}{2}$, 24, 24, 23, 23, $21\frac{1}{2}$, 20, 20, $19\frac{3}{4}$, $19\frac{1}{4}$, 19, $18\frac{1}{2}$, $18\frac{1}{2}$, 18, 18, 16 $\frac{1}{2}$, 16 $\frac{1}{2}$, 16, 16, $15\frac{3}{4}$, $15\frac{1}{2}$, $15\frac{1}{4}$, 15 & 15. Of these two ($45\frac{1}{4}$ & 32) were caught at Jalpaiguri and Barnes Ghat, and two (37 & 18) at Kalijhora. The rest were all caught at Riyang.

As regards localities for large fish, Riyang is certainly the best. There are perhaps larger fish at the Rungeet junction, but they are not there at the time the water is clear, at least I have never done any good at that time. In the spring when the water is still clear the fish have not yet come up from below, and by the time the water has cleared in the autumn the fish have passed down. The Rungeet is similar to the Teesta and remains permanently dirty during the high water season. I think it likely that anyone trying this spot in May, June, August and September with atta or live-bait would stand a good chance of booking some enormous fish. The water would always be too dirty for spinning at that time. Heat and rain are also further drawbacks. Nevertheless I believe the biggest fish in the river are to be had there at that time.

Large Mahseer may be occasionally taken at Kalijhora in the autumn, and also at Sevoke in September, but at the latter place it is then impossible to follow the fish down the bank and anything over 15 lbs. will usually clear the reel out and break away. I have been broken at Sevoke in September many times and never succeeded in landing anything big there. Large Mahseer may also be taken on atta at Jalpaiguri and Barnes Ghat during April and the first week in May, and smaller fish at other times. I have never tried there during the autumn.

It is not much use trying for large fish in the hill section of the river during the clear water season. The best fishing is at the mouths of the tributaries when the Teesta itself is dirty and there is a sufficient head of water in the tributary to give a good stretch of clear water in the Teesta below the mouth of the tributary. Large Mahseer should be sought when they are passing down in the autumn, and the largest fish are the last to pass up but the first to pass down. Late spring and early autumn are therefore the best times for big fish.

Summary of Light and Heavy Fishing

		Average weight per fish
$\begin{array}{c} 224 \text{ fish } 1,214\frac{1}{4} \text{ lbs} \\ 42 , 1,055\frac{1}{2} , \end{array}$	***	5.4 25.1

Summary of the Rungeet-Teesta Bridge portion of the Teesta River, 1909-1929

		per fish
Total Caught		
6 fish weighing $35\frac{3}{4}$ lbs. best fish $14\frac{1}{4}$ lbs	6 5 e	5.9
By Localities		
Rungeet River. 3 fish 28 lbs. best $14\frac{1}{4}$ lbs.		9.3
, Junction. 2 , 5 , , $3\frac{1}{2}$, Teesta Bridge. 1 , $2\frac{3}{4}$,		2.5
By Years		
1909. 1 fish of $2\frac{3}{4}$ lbs.		
1918. 1 ,, ,, $3\frac{1}{2}$,,		
1919. 1 ,, ,, 12 ,,		a
1921. 1 ,, ,, $1\frac{3}{4}$,,		
1923. 1 ,, ,, $1\frac{1}{2}$,,		
1929. 1 ,, ,, $14\frac{1}{4}$,,		
3		

Average weight

	Average weight per fish
By Months	
March. 4 fish 201 lbs. best 141 lbs April. 1 ,, 12 ,, November. 1 ,, $3\frac{1}{2}$,,	5.1
By Baits	
Spoon 5 fish 33 lbs. best $14\frac{1}{4}$ lbs Atta 1 ,, $2\frac{3}{4}$,,	6.6
Spoon Analysis	
No. 5 or $1\frac{1}{2}$ in. size— silver and brass 1 fish of $1\frac{3}{4}$ lbs. No. 7 or $2\frac{1}{2}$ ins. size—	
silver-scaled and copper 1 ,, ,, 14 ¹ / ₄ lbs.	
No. 8 or $2\frac{1}{2}$ ins. size , , , 12 and $3\frac{1}{2}$ lbs. all silver 2 , , , 12 and $3\frac{1}{2}$ lbs. No. 9 or 3 ins. size 1 , , $1\frac{1}{2}$ lbs.	7.8
Best Days March 16 1929. 1 fish of 14 ¹ / ₄ lbs. April 19 1919. 1 ,, ,, 12 ,,	

Large Mahseer

None.

Summary of the Riyang area of the Teesta River 1918-1930

											Average weig per fish	hl
Total Caugh	ht											
133 fish	weig	hing	g 1,483	[<u>불</u>]]	os. bes	st fish	n 54 lk	os			11.1	
By Years												
1918. 1919. 1920. 1921. 1922. 1923. 1924.	2 24 4 31 13 23 1	fish ,, ,, ,,	$13 \\ 122\frac{1}{2} \\ 102\frac{1}{2} \\ 358\frac{1}{2} \\ 146\frac{1}{2} \\ 146 \\ 24$	29 94 93 93 23	. best	$7\frac{1}{2} \\ 29\frac{3}{4} \\ 38 \\ 54 \\ 33\frac{3}{4} \\ 32 \\ \end{array}$	1bs. ,, ,, ,, ,, ,, ,, ,, ,,					
1924. 1925. 1926. 1927. 1928. 1929. 1930.	4 4 6 5 3 13	2 7 2 7 2 2 3 3 2 3 2 3 3 5 3 5 2 2	$\begin{array}{c} 77\frac{1}{2}\\ 34\frac{1}{4}\\ 57\frac{1}{4}\\ 56\frac{1}{2}\\ 32\frac{1}{4}\\ 307\frac{3}{4}\end{array}$))))))))))))))))))))	99 99 92 93 93 93	$\begin{array}{c} 40 \\ 18 \\ 16\frac{1}{2} \\ 36 \\ 18\frac{1}{2} \\ 39 \end{array}$	2 3 3 5 3 3 5 5 5 3 3 3					
By Months												
Jan. Feb. Mar. Apl. May June July Aug.	$2 \\ 2 \\ 21 \\ 26 \\ 15 \\ 1 \\ 6 \\ 16$	fish ,, ,, ,, ,, ,,	$\begin{array}{c} 17\frac{1}{4}\\7\\98\frac{1}{4}\\177\frac{1}{2}\\246\frac{3}{4}\\5\\21\frac{1}{2}\\116\frac{1}{4}\\208\frac{1}{4}\end{array}$	23 53 23 23 23 23 23	. best ,, ,, ,,	$ \begin{array}{r} 15\frac{1}{2} \\ 5 \\ 14\frac{1}{4} \\ 32 \\ 38 \\ 54 \\ 34\frac{1}{2} \end{array} $	3 3 7 3 3 7 3 7 3 7 3 7	•••• ••• •••		•••	8.6 3.5 4.7 6.8 16.4 19.4 13.0	
Sept. Oct.	43	• 2	583	**	,, ,,	39 ²	" "	•••		•••	13.6	
By Localitie	es		ŭ									
Gil Jhor Rilli Mo Riyang	uth. Rive	er.	1. 3 1 6 14	fish ,, ,,	23 ³ 131 191	lbs. ,,	best	$14\frac{3}{4}$ $4\frac{1}{4}$ 8	lbs.	•••	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	
Riyang		th. Area	. 97	,,	11411	"	,,	54	,,	••*	11.8	